COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Naval Architecture		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	NAOME1212	**SEMESTER**	2nd
COURSE TITLE	**SHIP LINES DRAWING AND INTRODUCTION TO CASD**		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS (ECTS)**
Lectures	2	5
Laboratory	2	
Total	4	

COURSE TYPE *general background, special background, specialized, general knowledge, skills development*	Special background
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (Italian)
COURSE WEBSITE (URL)	https://eclass.uniwa.gr/courses/NAFP109/ https://eclass.uniwa.gr/courses/NA209/ https://ocp.teiath.gr/courses/NAFP_UNDER118/ https://ocp.teiath.gr/modules/video/?course=NAFP_UNDER118 (VIDEO lectures)

(2) COURSE GOALS / LEARNING OUTCOMES

The aim of the course is to familiarize students with the basic principles and fundamentals of the lines plan design of the ship. In the course the geometric form of the ship will be described and students will understand how to use the lines plan of the ship in order to solve design and geometric resolution problems. Finally the application of CASD to the design of lines plan will be provided.

(3) COURSE CONTENT / SYLLABUS

1. LECTURES
   Fundamental Concepts and Definitions: Terminology of ship parts, general dimensions, hull coefficients. Hull geometric form, forward section forms, stern forms. Lines plan drawing, design methods. Main dimensions and hull coefficients optimum selection, main dimensions ratio. Calculations using lines plan drawing. Systematic series, introduction and lines plan design using systematic series. Introduction to CASD.
2. LABORATORY
   Conventional method lines plan design. Introduction and Analytical presentation of CASD. Lines plan design using CASD.

(4) TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face-to-face</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>• Support learning through the electronic e-class platform.</td></tr>
<tr><td>TEACHING METHODS
The manner and methods of teaching are described in detail.
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.
The student's study hours for each learning activity are given as well as the hours of non- directed study according to the principles of the ECTS</td><td>
<table>
<tr><th>Activity</th><th>Workload (hours)</th></tr>
<tr><td>Lectures</td><td>26</td></tr>
<tr><td>Laboratory exercises</td><td>26</td></tr>
<tr><td>Homework assignments</td><td>52</td></tr>
<tr><td>Individual study</td><td>39</td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Course total</td><td>143</td></tr>
</table>
</td></tr>
<tr><td>STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure
Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</td><td>1. Lectures (50 %)
1A. theoretical questions
2A. problems calculation

2. Laboratory (50 %)
- lines plan drawing examination
- CASD drawing examination</td></tr>
</table>

(5) ATTACHED BIBLIOGRAPHY

1. SHIP DESIGN DRAWING AND INTRODUCTION TO CASD, G. Hatzikonstandis, UNIWA, 2019
2. Letcher, J., 2009, The Principles of Naval Architecture Series: The Geometry of Ships, The Society of Naval Architects and Marine Engineers, ISBN: 978-0-939773-67-1.
3. Journal of Ship Research, ISSN# 0022-4502
4. Journal of Ship Production and Design, ISSN#2158-2866